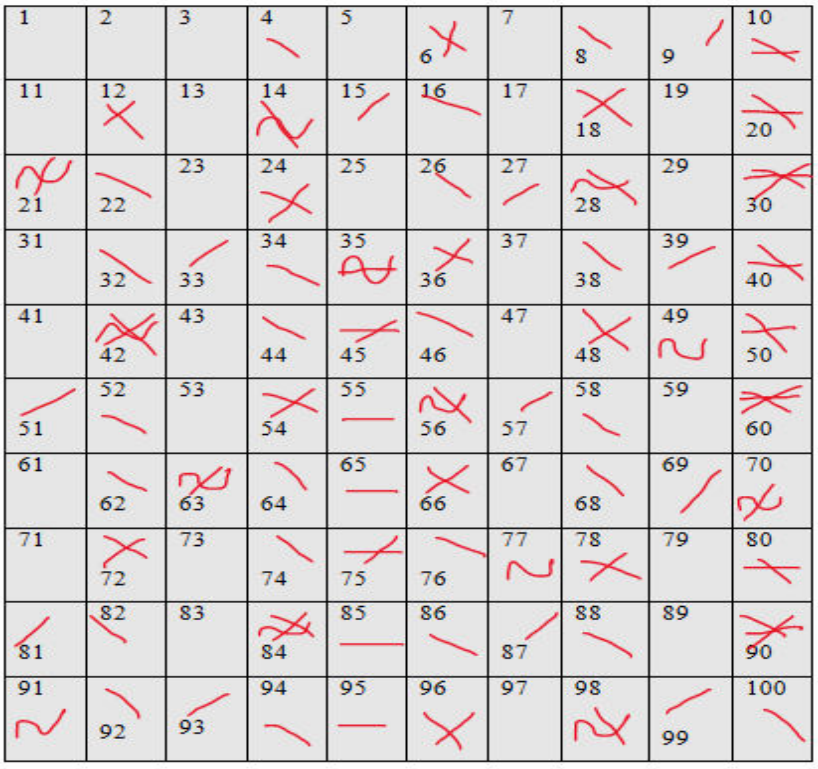
SIEVE OF ERATOSTHENES

The operation of the **Sieve of Eratosthenes** suggests that primes should be rarer among the larger integers.

- $1 - 50$: There are 15 primes.
- $50 - 100$: There are 10 primes.

To verify if the two statement above are true, the following table represents the result of the completed Sieve $(1 - 100)$. The multiples of 2 are crossed out by \ ; the multiples of 3 are crossed out by / ; the multiples of 5 are crossed out by – ; and the multiples of 7 are crossed out by ~ .



1 – 50: The primes are $\mathbf{2, 3, 5, 7, 11, 13, 17, 19, 23, 17, 19, 23, 29, 31, 37, 41, 43,}$ and $\mathbf{47}$. (15 primes)

50 – 100: The primes are $\mathbf{53, 59, 61, 67, 71, 73, 79, 83, 89,}$ and $\mathbf{97}$. (10 primes)